Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. *(Currently amended)* A user-interface method in which items are represented in an audio field by corresponding synthesized sound sources from where sounds related to the items appear to emanate, the method including the steps of:

(a) varying an offset between an audio-field reference relative to which the sound sources are located in the audio field, and a presentation reference determined by a mounting configuration of audio output devices through which the sound sources are synthesised; and

(b) determining and visually indicating the orientation of the audio-field reference relative to a predetermined indicator reference taking account~~, at least at a component level,~~ of any change in value of said offset and any change in value of indicator-reference orientation relative to the presentation reference, ~~at least where such changes do not match each other~~ where such changes do not match each other.

2. *(Original)* A user-interface method according to claim 1, wherein in step (b) the orientation of the audio field reference relative to the indicator reference is determined

from components of said offset and said indicator-reference orientation without intermediate determination of said offset and indicator-reference direction.

3. *(Previously presented)* A user-interface method according to claim 1, wherein in step (b) the determination of the orientation of the audio field reference relative to the indicator reference includes the intermediate determination of said offset and said indicator-reference orientation.

4. *(Previously presented)* A user-interface method according to claim 1, wherein in step (a) the said offset comprises a component that is varied to stabilise audio field relative to one of:

- a user's head;
- a user's body;
- a vehicle in which the user is travelling;
- the world;

this stabilisation taking account of whether audio output devices used to synthesise the sound sources are world, vehicle, body or head mounted, and, as appropriate, rotation of the user's head or body, or turning of the vehicle.

5. *(Original)* A user-interface method according to claim 1 or claim 4, wherein in step (a) the said offset comprises a component varied in response to user input via an input device.

6. *(Previously presented)* A user-interface method according to claim 1, wherein step (b) includes energising a selected indicator element of a set of such elements in dependence on the said orientation of the audio field reference relative to the indicator reference.

7. *(Previously presented)* A user-interface method according to claim 1, wherein step (b) includes displaying on a display screen an indication of the said orientation of the audio field reference relative to the indicator reference.

8. *(Previously presented)* A user-interface method according to claim 5, wherein step (b) includes indicating the said orientation of the audio field reference relative to the indicator reference via a visual orientation indicator arrangement that is incorporated into said input device.

9. *(Previously presented)* A user-interface method according to claim 8, wherein said input device includes a trackball device, the visual orientation indicator arrangement being a display screen.

10. *(Previously presented)* A user-interface method according to claim 8, wherein said input device includes a trackball device, the visual orientation indicator arrangement being a set of selectively energisable indicator elements.

11. *(Original)* A user-interface method according to claim 8, wherein the location of new item-representing sound sources in the audio field is indicated to a user by using the visual orientation indicator arrangement to indicate the orientation of the new sound source relative to said indicator reference.

12. *(Original)* A user-interface method according to claim 8, wherein the occurrence of an event relating to a said item is indicated to a user by using the visual orientation indicator arrangement to indicate the orientation of the corresponding sound source relative to said indicator reference.

13. *(Original)* A user-interface method according to claim 1, including user selection of said predetermined indicator reference from multiple possible such references.

14. *(Currently amended)* A user-interface method according to claim 1, wherein the sound sources are rendered through headphones and said offset remains unchanged by rotation of the user's head relative to their body whereby to stabilise the audio field relative to the user's head; said predetermined indicator reference being one of:

- current facing direction, in which case step (b) takes account of any changes~~, at least at a component level,~~ in said offset, there being no change in the orientation of the indicator reference relative to the presentation reference;

- straight-ahead facing direction in which case step (b) takes account~~, at least at a component level,~~ of any changes in said offset, as well as changes in the orientation

of the indicator reference relative to the presentation reference resulting from rotation of the user's head relative to their body;

- a direction fixed relative to the world, in which case step (b) takes account~~, at least at a component level,~~ of ~~of~~ any changes in said offset, as well as changes in orientation of the indicator reference relative to the presentation reference resulting from rotation of the user's head relative to the world.

15. *(Currently amended)* A user-interface method according to claim 1, wherein the sound sources are rendered through headphones and step (a) includes varying said offset in dependence on the rotation of the user's head relative to their body whereby to stabilise the audio field relative to the user's body; said predetermined indicator reference being one of:

- current facing direction, in which case step (b) takes account~~, at least at a component level,~~ of changes in said offset, there being no change in the orientation of the indicator reference relative to the presentation reference;

- straight-ahead facing direction in which case step (b) takes account~~, at least at a component level,~~ of changes in said offset except that changes in offset resulting from rotation of the user's head relative to its body are matched out by the changes in the orientation of the indicator reference relative to the presentation reference;

- a direction fixed relative to the world, in which case step (b) takes account~~, at least at a component level,~~ of both of changes in said offset, and changes in orientation of the indicator reference relative to the presentation reference resulting from rotation of the user's body relative to the world.

16. *(Currently amended)* A user-interface method according to claim 1, wherein the sound sources are rendered through headphones and step (a) includes varying said offset in dependence on the rotation of the user's head relative to the world whereby to stabilise the audio field relative to the world; said predetermined indicator reference being one of:

- current facing direction, in which case step (b) takes account~~, at least at a component level,~~ of changes in said offset, there being no change in the orientation of the indicator reference relative to the presentation reference;

- straight-ahead facing direction in which case step (b) takes account~~, at least at a component level,~~ of changes in said offset except that components of offset changes resulting from rotation of the user's head relative to their body are matched out by the changes in the orientation of the indicator reference relative to the presentation reference;

- a direction fixed relative to the world, in which case step (b) takes account~~, at least at a component level,~~ of changes in said offset except that changes in offset resulting from rotation of the user's head relative to the world are matched out by the changes in the orientation of the indicator reference relative to the presentation reference.

17. *(Previously presented)* A user-interface method according to claim 12, wherein the changes in the said offset include user-commanded changes.

18. *(Original)* A user-interface method according to claim 1, wherein the orientation of the audio-field reference relative to a predetermined indicator reference has at least two degrees of freedom.

19. *(Original)* A user-interface method according to claim 1, wherein the indicator reference is one of:

- the presentation reference;
- a current facing direction of the user;
- a straight-ahead facing direction of the user;
- a world-fixed direction.

20. *(Currently amended)* An audio user-interfacing method in which each of a plurality of items is represented in an audio field by plural synthesized sound sources from where sounds related to ~~the~~ each item appear to emanate, the method comprising the steps of:

(a) setting the location of each sound source relative to an audio-field reference;

(b) controlling an offset between the audio-field reference and a presentation reference determined by a mounting configuration of the audio output devices, this offset being varied both in response to user input and to achieve a particular stabilisation of the audio field;

(c) determining a rendering position for each sound source by combining the location of the sound source in the audio field with said offset;

(d) rendering said sound sources at their associated rendering positions in the audio field; and

(e) determining and visually indicating the orientation of the audio field reference relative to a predetermined indicator reference direction taking account~~, at least at a component level,~~ of any change in said offset and any change in the orientation of said indicator reference direction relative to the presentation reference, ~~at least where such changes do not match each other~~ where such changes do not match each other.

21. *(Currently amended)* Apparatus for providing an audio user interface in which each of a plurality of items is represented in an audio field by plural respective synthesized sound sources from where sounds related to the item appear to emanate, the apparatus including:

a processor arrangement for (a) varying an offset between an audio-field reference relative to which the sound sources are located in the audio field, and a presentation reference determined by a mounting configuration of audio output devices of the apparatus through which the sound sources are synthesised; and (b) determining the orientation of the audio-field reference relative to a predetermined indicator reference taking account~~, at least at a component level,~~ of any change in value of said offset and any change in value of indicator-reference orientation relative to the presentation reference, ~~at least where such changes do not match each other~~ where such changes do not match each other; and

- a visual orientation indicator arrangement for visually indicating the said orientation determined by the orientation-determining means.

22. *(Previously presented)* Apparatus according to claim 21, wherein the processor arrangement is operative to determine the orientation of the audio field reference relative to the indicator reference on the basis of components of said offset and said indicator-reference orientation without intermediate determination of said offset and indicator-reference direction.

23. *(Previously presented)* Apparatus according to claim 21, wherein the processor arrangement is operative to determine the orientation of the audio field reference relative to the indicator reference through the intermediate determination of said offset and said indicator-reference orientation.

24. *(Previously presented)* Apparatus according to claim 21, wherein the processor arrangement is operative to vary said offset such as to stabilise audio field relative to one of:

- a user's head;
- a user's body;
- a vehicle in which the user is travelling;
- the world;

this stabilisation taking account of whether the audio output devices used to synthesise the sound sources are world, vehicle, body or head mounted, and, as appropriate, rotation of the user's head or body, or turning of the vehicle.

25. *(Previously presented)* Apparatus according to claim 21, wherein the processor arrangement is operative to vary the said offset in response to user input via an input device of the apparatus.

26. *(Previously presented)* Apparatus according to claim 21, wherein the visual orientation indicator arrangement comprises a set of selectively energisable indicator elements, one of the processor arrangements and the visual orientation indicator arrangement being arranged for energising a selected one of the elements in dependence on the determined orientation of the audio field reference relative to the indicator reference.

27. *(Previously presented)* Apparatus according to claim 21, wherein the visual orientation indicator arrangement comprises a display screen, one of the processor arrangements and the visual orientation indicator arrangement being arranged for causing the display on the screen of an indication of the determined orientation of the audio field reference relative to the indicator reference.

28. *(Previously presented)* Apparatus according to claim 25, wherein the visual orientation indicator arrangement is included in the input device.

29. *(Previously presented)* Apparatus according to claim 28, wherein said input device includes a trackball device, the visual orientation indicator arrangement comprising a display screen, and one of the processor arrangements and the visual orientation indicator arrangement being arranged for energising a selected one of the elements in dependence on the determined orientation of the audio field reference relative to the indicator reference.

30. *(Previously presented)* Apparatus according to claim 28, wherein said input device includes a trackball device, the visual orientation indicator arrangement comprising a set of selectively energisable indicator elements, and one of the processor arrangements and the visual orientation indicator arrangement being arranged for energising a selected one of the elements in dependence on the determined orientation of the audio field reference relative to the indicator reference.

31. *(Previously presented d)* Apparatus according to claim 28, further comprising an indicator arrangement for indicating the location of new item-representing sound sources in the audio field by causing the visual orientation indicator arrangement to indicate the orientation of the new sound source relative to said indicator reference.

32. *(Previously presented)* Apparatus according to claim 28, further comprising an indicator arrangement for indicating the occurrence of an event relating to a said item by

causing the visual orientation indicator arrangement to indicate the orientation of the corresponding sound source relative to said indicator reference.

33. *(Original)* Apparatus according to claim 21, wherein the orientation of the audio-field reference relative to a predetermined indicator reference has at least two degrees of freedom.

34. *(Original)* Apparatus according to claim 21, wherein the indicator reference is one of:

- the presentation reference;
- a current facing direction of the user;
- a straight-ahead facing direction of the user;
- a world-fixed direction.

35. *(Currently amended)* Apparatus for providing an audio user interface in which each of a plurality of items is represented in an audio field by plural synthesized sound sources from where sounds related to the item appear to emanate, the apparatus including:

- a control arrangement for varying an offset between an audio-field reference relative to which the sound sources are located in the audio field, and a presentation reference determined by a mounting configuration of audio output devices of the apparatus through which the sound sources are synthesised;

- an orientation-determining arrangement operative to determine the orientation of the audio-field reference relative to a predetermined indicator reference taking account~~, at least at a component level,~~ of any change in value of said offset and any change in value of indicator-reference orientation relative to the presentation reference, ~~at least where such changes do not match each other~~ where such changes do not match each other; and

- a visual orientation indicator arrangement for visually indicating the said orientation determined by the orientation-determining means.

36. *(Currently amended)* Apparatus for providing an audio user interface in which each of a plurality of items is represented in an audio field by plural respective synthesized sound sources from where sounds related to the item appear to emanate, the apparatus comprising:

- means for setting the location of each said sound source relative to an audio-field reference;

- offset means for controlling an offset between the audio-field reference and a presentation reference determined by a mounting configuration of the audio output devices;

- means for deriving the rendering position of each sound source based on the location of the sound source in the audio field and said offset;

- rendering means, including audio output devices, for generating an audio field in which said sound sources are synthesized at their associated rendering positions to provide sounds related to the items concerned; and

- a visual indicator arrangement for determining and visually indicating the orientation of the audio field reference relative to a predetermined indicator reference taking account~~, at least at a component level,~~ of any change in said offset and any change in the orientation of said indicator reference direction relative to the presentation reference, ~~at least where such changes do not match each other~~ where such changes do not match each other.

37. *(Currently amended)* In apparatus for providing an audio user interface in which each of a plurality of items is represented in an audio field by plural respective synthesized sound sources from where sounds related to the item appear to emanate, an input device comprising:

- at least one user-operable element, with associated sensing means, for commanding a change in offset between (a) an audio-field reference relative to which the sound sources are located in the audio field~~,~~ and (b) a presentation reference determined by a mounting configuration of audio output devices through which the sound sources are synthesised; and

- a visual orientation indicator arrangement for visually indicating the orientation of the audio field reference relative to a predetermined indicator reference, the visual orientation indicator arrangement comprising a set of selectively energisable indicator elements.

38. *(Currently amended)* In apparatus for providing an audio user interface in which each of a plurality of items is represented in an audio field by plural respective synthesized sound sources from where sounds related to the item appear to emanate, an input device comprising:

- at least one user-operable element, with an associated sensing arrangement, for commanding a change in offset between (a) an audio-field reference relative to which the sound sources are located in the audio field, and (b) a presentation reference determined by a mounting configuration of audio output devices through which the sound sources are synthesised; and

- a visual orientation indicator arrangement for visually indicating the orientation of the audio field reference relative to a predetermined indicator reference, the visual orientation indicator arrangement comprising a visual display screen.

39. *(Previously presented)* In apparatus for providing an audio user interface in which each of a plurality of items is represented in an audio field by plural respective synthesized sound sources from where sounds related to the item appear to emanate, an input device comprising:

- at least one user-operable mechanical element with at least two degrees of freedom and associated sensing means, for commanding a change in offset between an audio-field reference relative to which the sound sources are located in the audio field, and a presentation reference determined by a mounting

configuration of audio output devices through which the sound sources are synthesised; and

- a visual orientation indicator arrangement for visually indicating the orientation of the audio field reference relative to a predetermined indicator reference, the visual orientation indicator arrangement comprising markings on an external surface of the user-operable element.

40. *(Previously presented)* In apparatus for providing an audio user interface in which each of a plurality of items is represented in an audio field by at least one respective synthesized sound source from where sounds related to the item appear to emanate, the input device of claim 39 wherein the user-operable element includes a trackball.

41. *(Previously presented)* In apparatus for providing an audio user interface in which each of a plurality of items is represented in an audio field by at least one respective synthesized sound source from where sounds related to the item appear to emanate, the input device of claim 39 wherein the user-operable element includes a cylinder that is displaceable along, and rotatable about, its axis.

42. *(Previously presented)* A user-interface method according to claim 1, further including displaying the visual indication of the orientation on a display that is dedicated only to visual display.

43. *(Previously presented)* A user-interface method according to claim 20, further including displaying the visual indication of the orientation on a display that is dedicated only to visual display.

44. *(Previously presented)* Apparatus according to claim 21, wherein the visual orientation indicator arrangement is dedicated only to visual display.

45. *(Previously presented)* Apparatus according to claim 35, wherein the visual orientation indicator arrangement is dedicated only to visual display.

46. *(Previously presented)* Apparatus according to claim 36, wherein the visual orientation indicator arrangement is dedicated only to visual display.

47. *(Previously presented)* Apparatus according to claim 37, wherein the visual orientation indicator arrangement is dedicated only to visual display.

48. *(Previously presented)* Apparatus according to claim 38, wherein the visual orientation indicator arrangement is dedicated only to visual display.

49. *(Previously presented)* Apparatus according to claim 39, wherein the visual orientation indicator arrangement is dedicated only to visual display.

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